

INTRA-AMNIOTIC INFECTION–RELATED FETAL DEATH: GESTATIONAL AGE–DEPENDENT DIFFERENCES IN MICROBIOLOGICAL PROFILES

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183

Perinatal deaths reviewed
(2021–2024)

35 (19.1%)

IAI-related fetal deaths
(PASS 1.B)

16

Cases <20 weeks

19

Cases ≥20 weeks

100%

Histopathological IAI confirmation

● BACKGROUND

Intra-amniotic infection (IAI) is a recognized and potentially preventable cause of fetal death. Its microbiological and clinical presentation may differ across gestational age, but this relationship remains incompletely characterized.

● OBJECTIVES

To describe the microbiological profile of fetal deaths classified as intra-amniotic infection (IAI) – related according to gestational age.

● METHODS

- Retrospective study, single tertiary center (2021–2024)
- Cases classified as PASS 1.B (infection) included
- Placental culture data analyzed by gestational age (<20 vs ≥20 weeks)



FETAL DEATHS <20 WEEKS (n=16)

● Clinical context

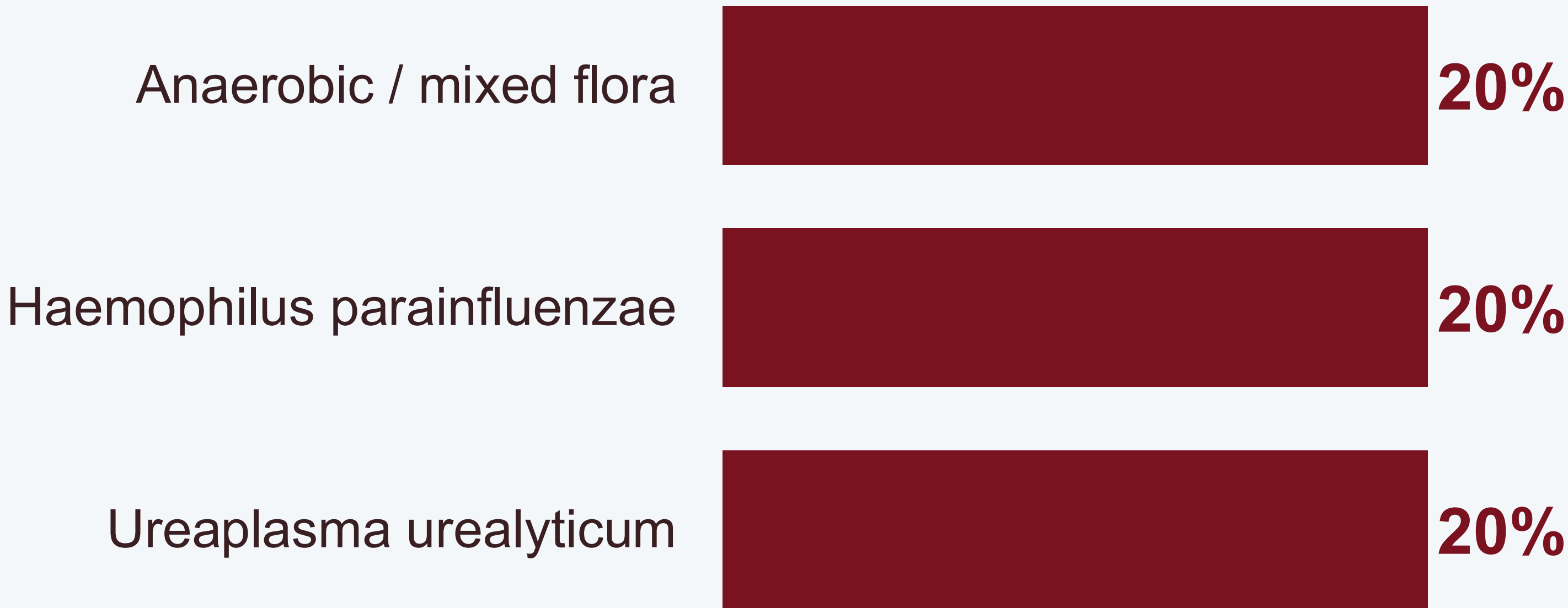
- Preterm labor / PROM50%
- Cervical insufficiency18.8%
- Invasive procedures25%

31.3%

of cases yielded a
positive placental
culture

● Microorganisms identified

% of positive cultures



Predominant pathway: ascending urogenital infection

FETAL DEATHS ≥20 WEEKS (n=19)

● Clinical context

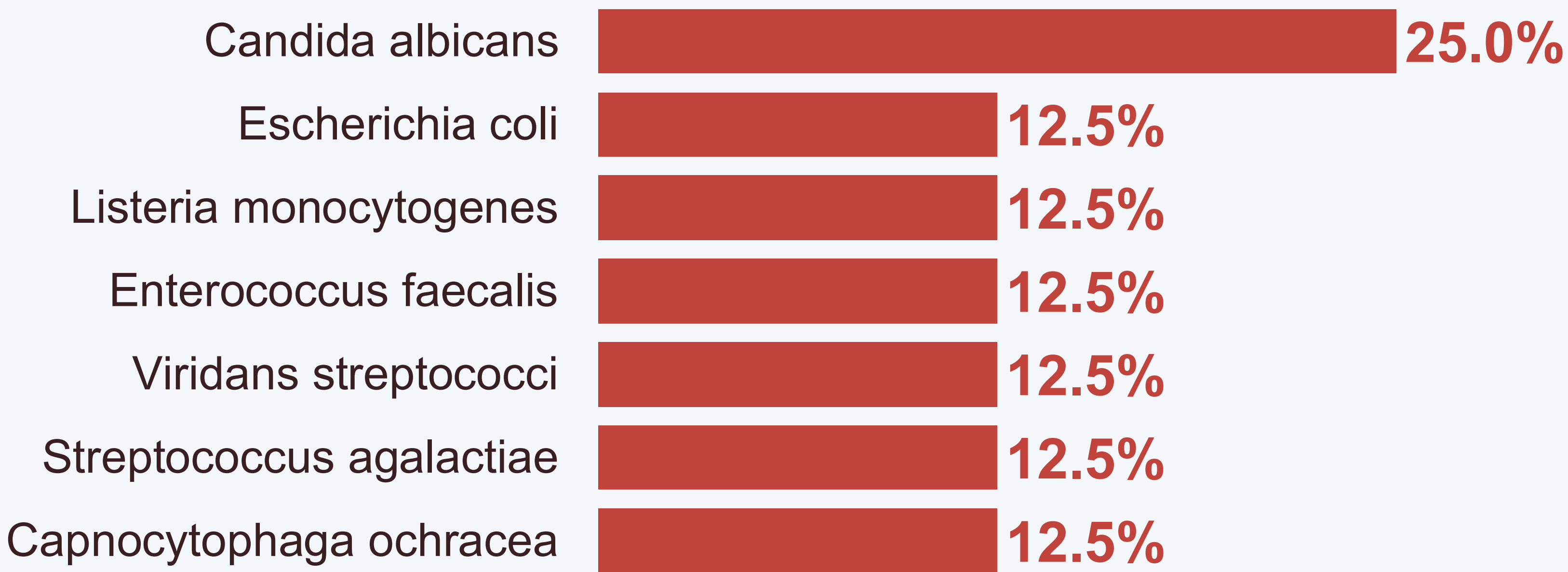
- Preterm labor / PROM58%
- Cervical insufficiency21%
- Decreased fetal movements11%
- Maternal febrile syndrome5%

42.1%

of cases yielded a
positive placental
culture

● Microorganisms identified

% of positive cultures



Broader spectrum — ascending and hematogenous pathways



● CONCLUSIONS

- IAI shows a gestational age–dependent microbiological and clinical pattern.
- Systematic evaluation of fetal deaths <20 weeks is warranted, given recurrence risk and preventive implications.
- Early losses relate to ascending urogenital infection; later losses show a broader, multi-pathway spectrum.
- Standard cultures were negative in >50% of cases — supporting the need for more sensitive diagnostic approaches.

